HYDROLOGY

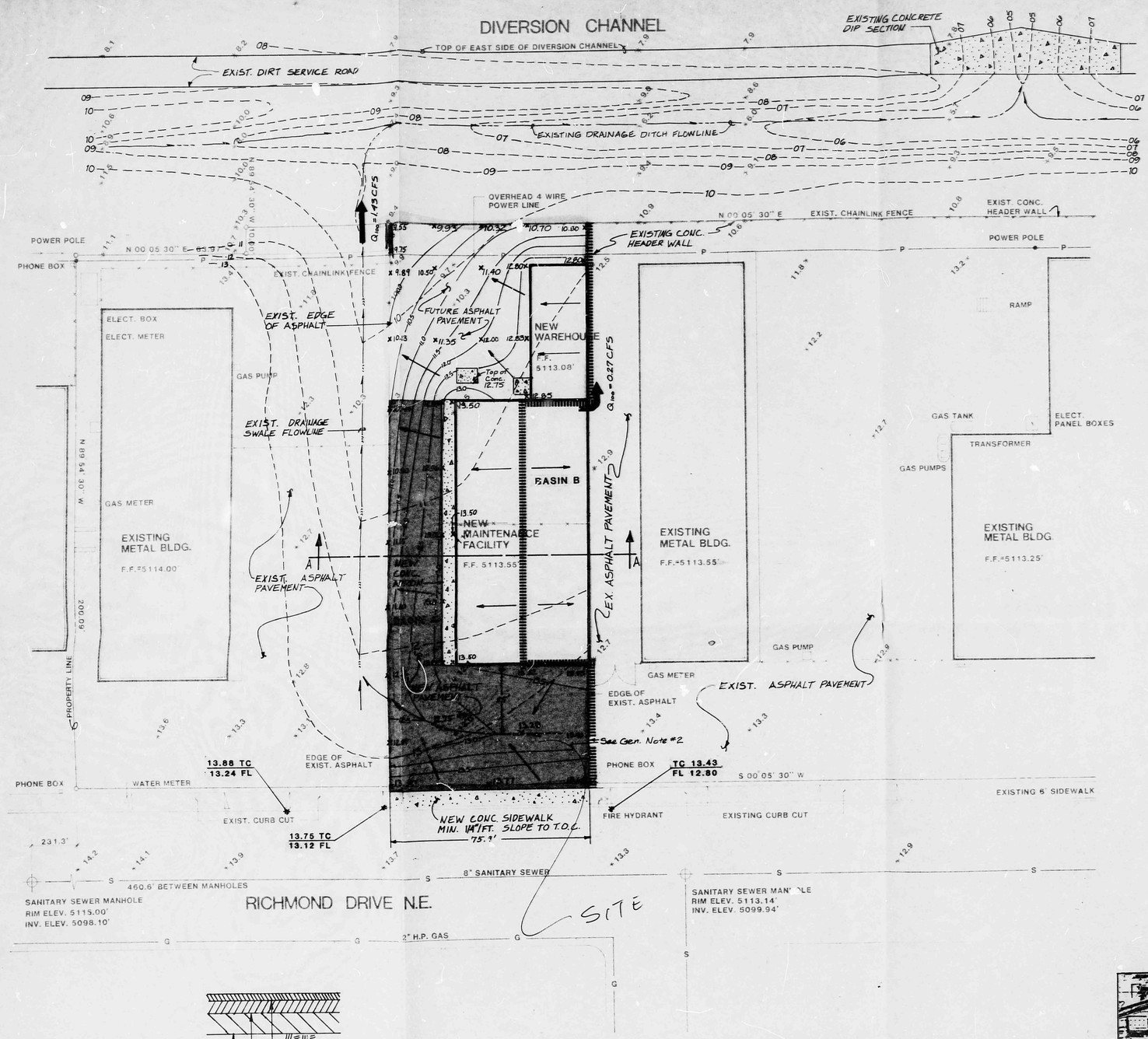
H16/D63

ONE PLAN

I PLAN FOR

BLAKE'S WAREHOUSE
ADDN.
+
MAINTENANCE FACILITIES

H16-D63



LEGEND

- New asphalt pavement
- New concrete
- 12 — Existing contour
- Drainage swale flowline
- * 12.80 Existing spot elevation
- x 13.40 Proposed top of pavement spot elevation
- Drainage basin boundary line
- Direction of flow
- 12.5 — Finish Contour

DRAINAGE CALCULATIONS

AREA:

A = ab (rectangular) a = 75.9' b = 210.09'

A = 75.9' x 210.09' = 15,945.03 ft^2

= 0.3661 Ac

Basin B: A_B = 25' x 100' = 2,500. ft^2 = 0.0574 Ac

Basin A: A_A = 0.3661' − 0.0574 = 0.3087 Ac

RAINFALL:

T_c = 10 min. Q_{100}^{avg} = 2.2 in. (Plates 22.2 D-1, D-2)

$I_{10min.} = Q_{100}^{avg} \cdot 6.84\, T_c^{-.51} = 2.2 \times 6.84 \times 10^{-.51}$

= 4.65 in.

HISTORIC RUNOFF:

100% Impervious (bare ground and gravel)

C = 1 (Plate 22.2 C-1)

Q_{100} = CIA = 1 x 4.65 x 0.3661

= 1.70 CFS

DEVELOPED RUNOFF:

100% Impervious (bare ground, asphalt paving, roofs)

C = 1 Q_{100} = CIA

Basin A: Q_{100} = 1 x 4.65 x 0.3087 = 1.43 CFS

Basin B: Q_{100} = 1 x 4.65 x 0.0574 = 0.27 CFS

Q_{100}^{TOTAL} = 1.70 CFS

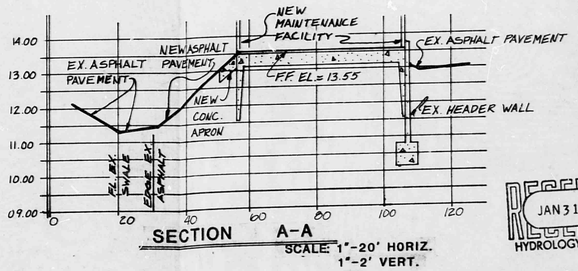
Reference: Chpt. 22, Sec. 2, Development Process Manual

GENERAL NOTES:

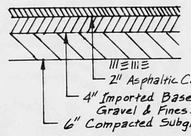
1. Legal: A 75.9' X 210.09' rectangular area located in the southern portion of Lot A. Block B, Duke City Industrial Area.
2. The Contractor shall saw cut 12" into the existing asphalt pavement making a clean smooth edge before Construction of new asphalt paving section.
3. Lot A is located in Zone C, an area of minimal flooding, FEMA Map No. 350002-0023C.
4. Drainage Basin "A" will continue to drain to an existing asphalt drainage swale that is located 36.0' south from the proposed maintenance building. At present the existing drainage swale is conveying runoff in a westerly direction to an existing drainage ditch located within the AMAFCA Right-of-way. The existing drainage ditch discharges into the AMAFCA North Diversion Channel approximately 165' north of the northern boundary of the area to be improved.
5. Drainage Basin "B" (north ½ of proposed maintenance building, 2500 sq. ft.) will contribute 0.27 CFS to the existing developed flows within the Northern portion of Lot "A". Drainage Basin "B" runoff will have confluence with Lot "A" runoff and flow into an existing drainage swale conveying drainage in a westerly direction to an existing drainage ditch located within the AMAFCA Right-of-way.
6. Proposed project shall not have any on site ponding.
7. The improvements to the proposed project site do not increase the drainage runoff as defined by Chapter 22.2, Section C, Runoff volumes paragraph 4 of the D.P.M. Therefore no impact is anticipated to the downstream facilites.

BENCHMARK DATA:

ACS 6-H16
ELEV. 5112.162
AMAFCA R/W B.C. Located in N.W. Quad. of the crossing of the North Diversion Channel by Candelaria Road.



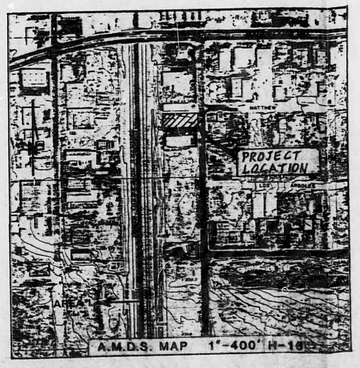
SECTION A-A
SCALE: 1"-20' HORIZ.
1"-2' VERT.



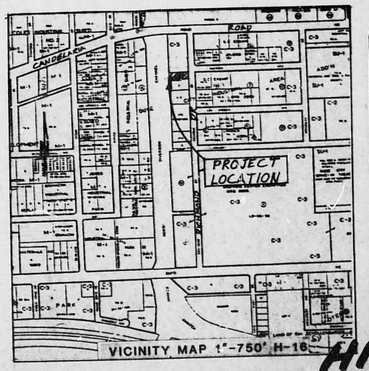
TYPICAL PARKING LOT PAVEMENT SECTION
N.T.S.

NORTH

0 5 10 25 50 75 100 150
SCALE 1"=20'-0"



A.M.D.S. MAP 1"-400' H-16



VICINITY MAP 1"-750' H-16

2-2 SITE GRADING & DRAINAGE PLAN

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Albuquerque, New Mexico
87108

1/31/85

BLAKE'S WAREHOUSE ADDITION & MAINTENANCE FACILITIES

BLAKE CHANSLOR - BLAKE'S LOTABURGER
HEADQUARTERS - 3205 Richmond Dr. N.E. Albuquerque, New Mexico

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app. by C.L.B.
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revisions

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